U. S. Department of Agriculture
Forest Service
Southeastern Area
State & Private Forestry

FOREST PEST MANAGEMENT

Report No. 82-3-40

Issued: 8-19-82

AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, GEORGE WASHINGTON NATIONAL FOREST, VIRGINIA

LAND OWNERSHIP OR SURVEY AREA: George Washington National Forest

STATE: Virginia

AREA WITHIN SURVEY BOUNDARY: 1,790,000 acres

DATE: August 9-12, 1982

PERCENT COVERAGE: 25%

AIRCRAFT: Cessna 182

CREW: C.W. Dull, Forest Pest Management; Rob Deyo, George Washington National Forest

SURVEY OBJECTIVES

The primary objective of this survey was to detect forest insect and disease activity on the George Washington National Forest. Previous reports from the ranger districts indicated that oak mortality was occurring in several areas. On-site examinations by Forest Pest Management personnel prior to this survey indicated that extensive oak mortality was occurring. This is believed to be caused by successive years of defoliation by a complex of forest defoliators in combination with a serious drought in the summer of 1981. Special emphasis was placed on delineating the areas of hardwood mortality observed during this survey.

SURVEY RESULTS

Widespread hardwood mortality was observed on the Lee Ranger District with isolated areas occurring on the Pedlar Ranger District. Heavy oak mortality was observed on the Pedlar Ranger District just south of Buena Vista along route 501 between Belle Cove and Davidson Run. Most of the oaks within this area were dying, exhibited red foliage or had died previous to this survey. The district has already designated this area for a salvage sale. On the Lee Ranger District much more widespread mortality was observed. Throughout the Massanutten Mountain Range, large areas of hardwood mortality, mostly oaks, were observed. Ground checks in one area revealed no other problem, other than what might have been caused by successive years of defoliation as has been indicated during previous aerial surveys coupled with the drought of last year. Another area of defoliation on the Lee District was found along Paddy Mountain south of route 55. The attached maps show the locations of these defoliated areas. The photographs included with this report show the degree of mortality occurring at the locations indicated on the maps.

SURVEY CONCLUSIONS

For the past three years, very heavy and widespread defoliation by a complex of forest defoliators, including the fall cankerworm, Alsophila pometaria (Harris), linden looper, Erannis tiliaria (Harris), and Phigalia titea (Cramer), have defoliated the areas which now exhibit widespread hardwood mortality. Although rainfall is above normal this year for this area, the stress of three years successive defoliation as well as last years drought is now taking its toll on the stressed hardwoods. An evaluation to determine the current status of the defoliators and to assess the amount of dead timber should be conducted.

Other pest activity appeared to be at a low level across the National Forest. The locust leaf miner was active in some areas. This pest caused browning of the locust foliage which may be aesthetically unpleasing, however, it is considered of minor importance. National forest personnel should continue field surveillance activities and report pest problems when observed.

For additional information, contact:

USDA Forest Service FPM
3620 Interstate 85, N.E.
Northgate Office Park, Room 2103
Doraville, GA 30340
Telephone: 404/221-4796

or

USDA Forest Service FPM
P.O. Box 2570
Asheville, NC 28802
Telephone: 704/258-2850

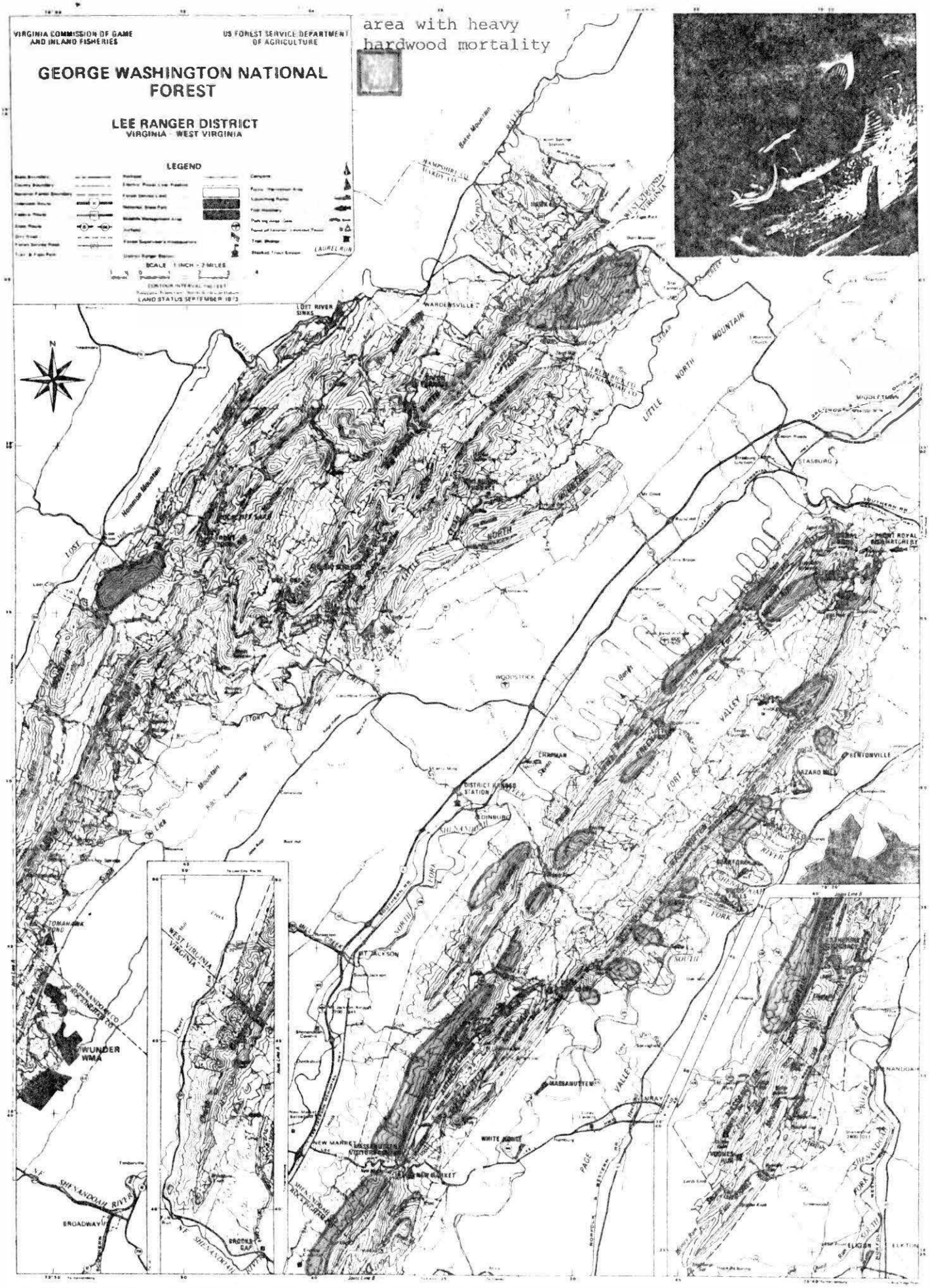


Figure 1 - Areas of hardwood mortality as observed during 8/9-10/82 aerial detection survey

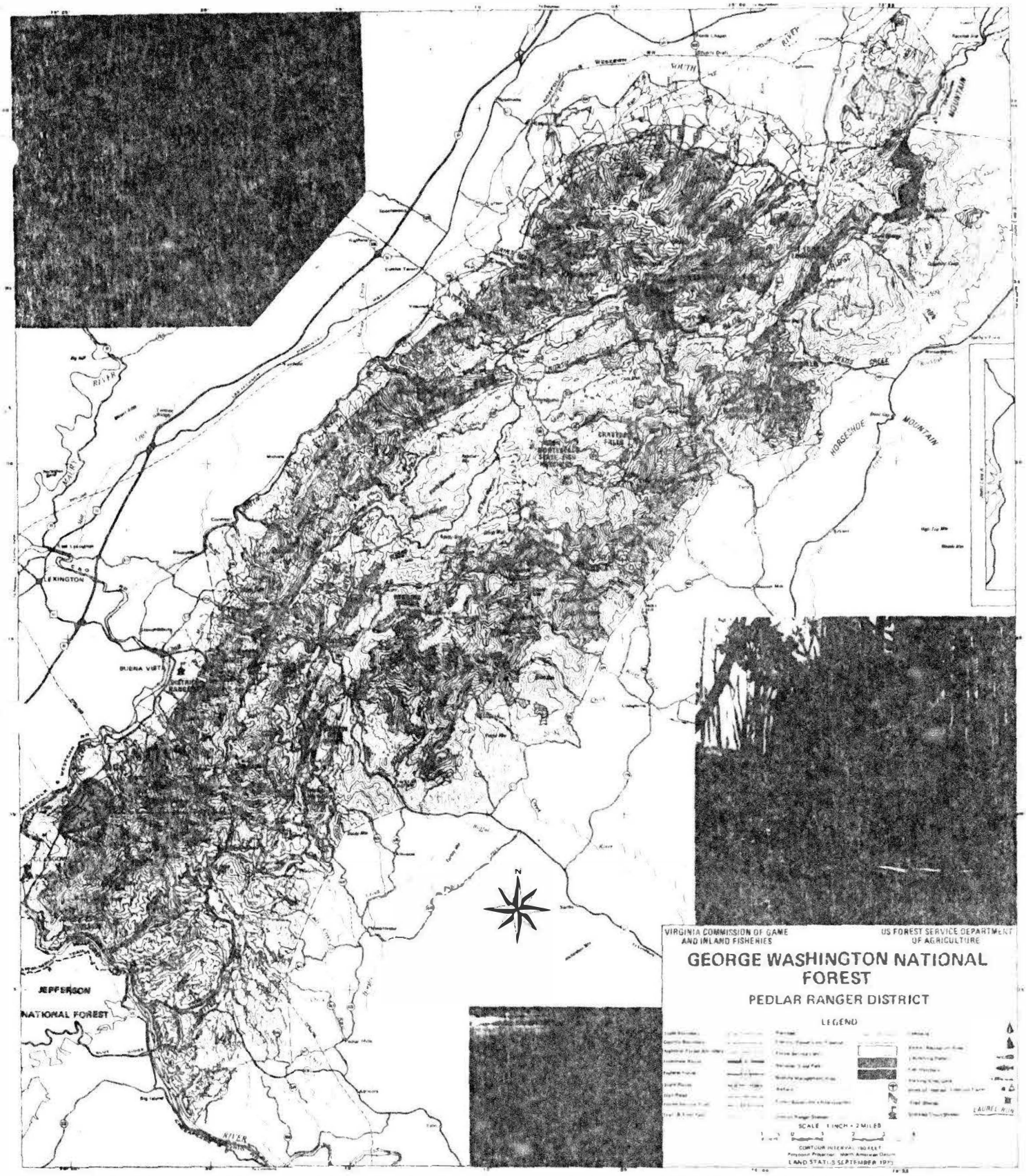
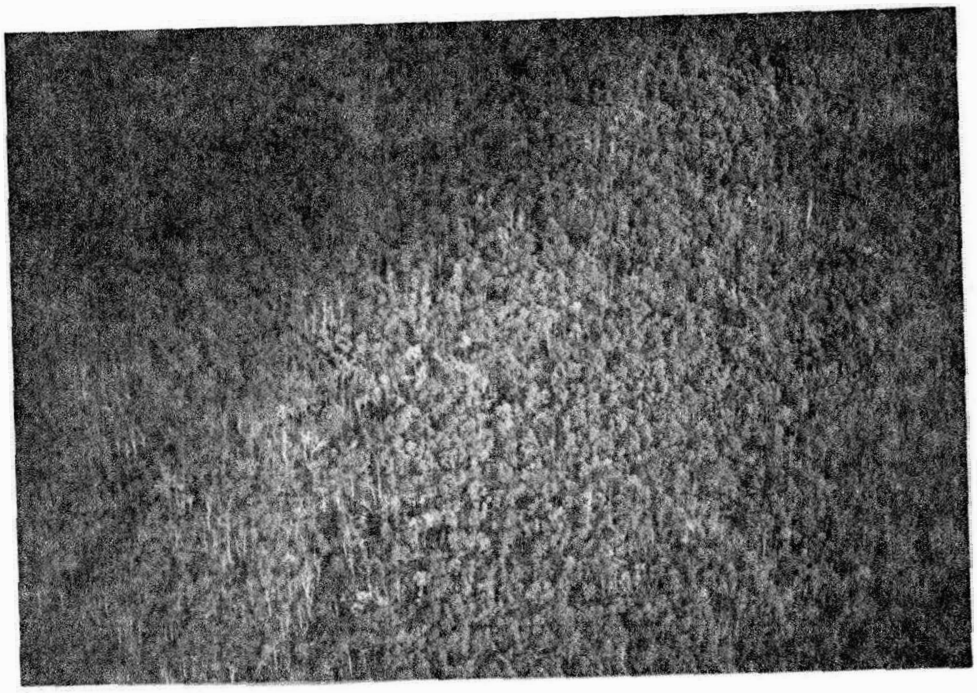
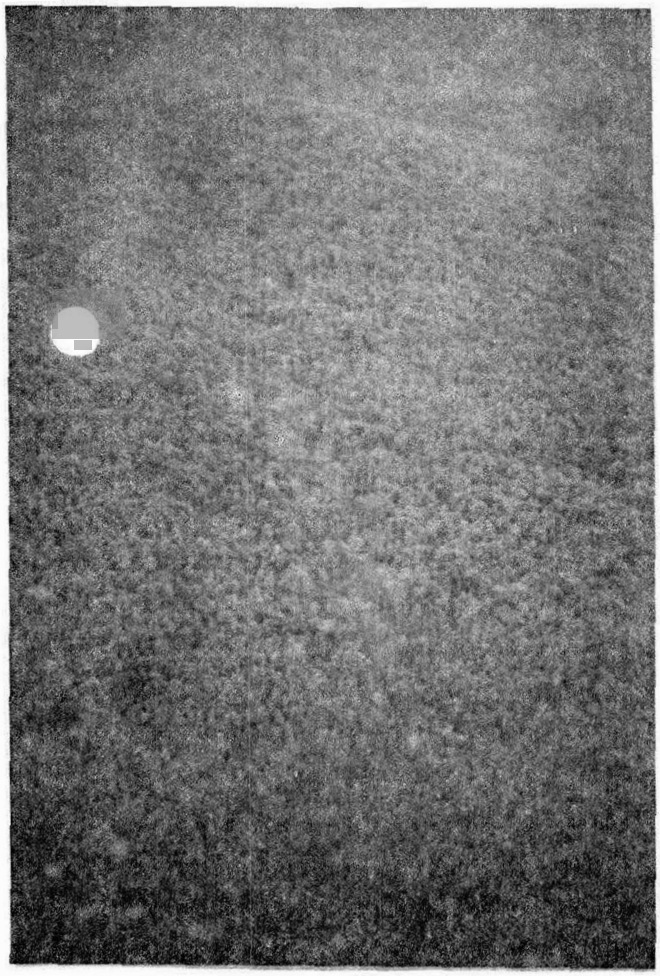


Figure 2 - Area of hardwood mortality as observed during 8/9/82 aerial detection survey





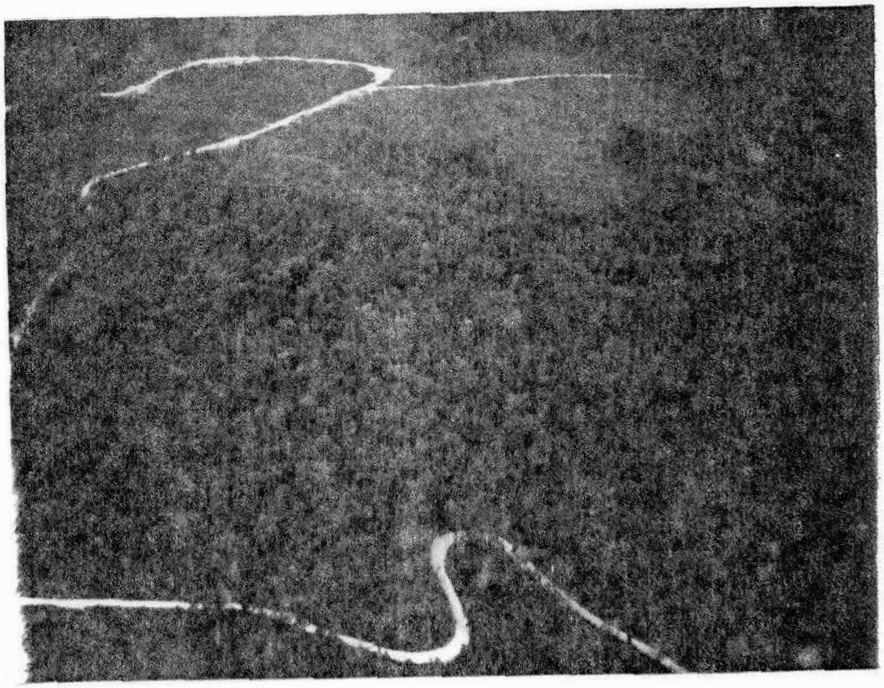


Figure 3 - Aerial views of hardwood mortality on the Massanutten Mountain, Lee Ranger District taken 8/9/81

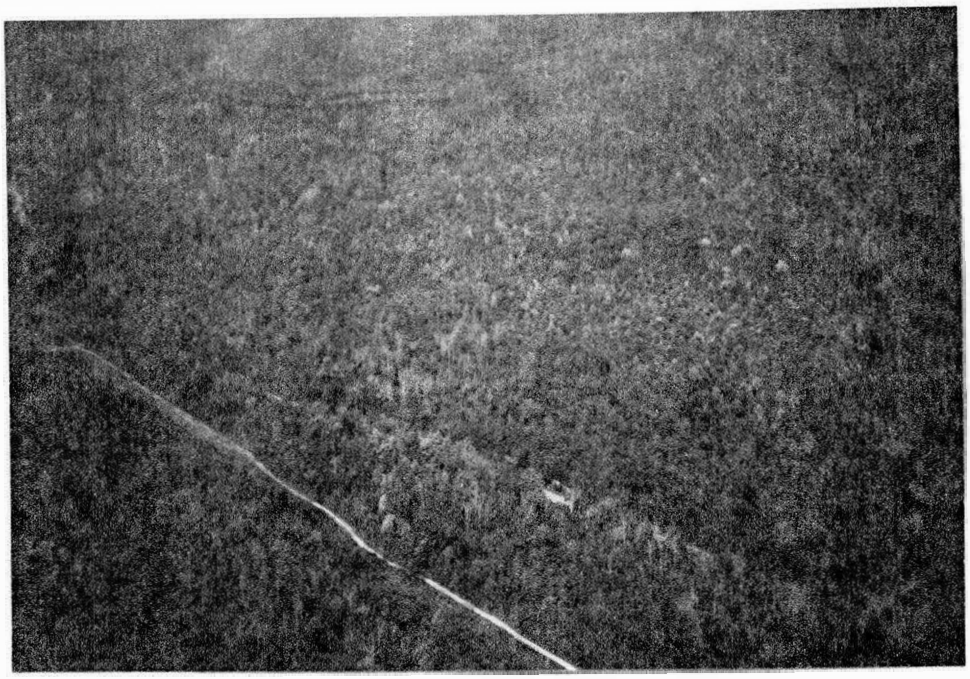


Figure 4 - Aerial view of hardwood mortality along Route 501 on the Pedlar Ranger District, 8/10/81